

L 38467-66 EMT(1)/T JK

ACC NR: AP6029184

SOURCE CODE: UR/0016/66/000/005/0014/0017

AUTHOR: Volkova, L. A.; Yushkin, G. V.

ORG: Orenburg Oblast' Sanitary-Epidemiological Station (Orenburgskaya oblastnaya sanitarno-epidemiologicheskaya stantsiya)

TITLE: Tularemia in Orenburgskaya Oblast, I.

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 5, 1966, 14-17

TOPIC TAGS: tularemia, epidemiology, pathology, rodent, disease incidence

ABSTRACT: On the basis of a study conducted between 1960 and 1962, the authors concluded that the boundaries of the natural focus of tularemia in Orenburgskaya Oblast (a floodplain swamp) have tended to expand since the disease was first reported in this area in 1928. In 1960, six cultures of *P. tularensis* were isolated from *Arvicola terrestris* L., *Cricetus cricetus* L., *Apodemus sylvaticus*, and *Citellus* maximum. The number of rodents caught in enzootic and nonenzootic regions was about the same, but the tularemia pathogen was not isolated from any of the rodents caught in the nonenzootic regions.

The pathological changes characteristic of tularemia were found mainly in the water voles, e.g., enlargement of the lymph nodes of the liver and marked splenomegaly. Orig. art. has: 2 tables. [JPRS: 36,932]

SUB CODE: 06 / SUBM DATE: 15Jun64 / ORIG REF: 002

Card 1/1 MLP

UDC: 616.981.455-036.21(470.56)

L 40072-66 EWT(m)/EWP(j)/T IJP(c) RM

ACC NR: AP6012417

(A) SOURCE CODE: UR/0183/65/000/006/0022/0026

AUTHOR: Sorokin, A. Ya.; Andreyeva, N. A.; Volkova, L. A.; Kol'tsov, A. I.;  
Rudakov, A. F.; Pyrkov, L. M.; Frenkel', S. Ya 57  
6

ORG: IVS AN SSSR

TITLE: Correlation of structural and mechanical characteristics of  
polyvinyl alcohol fibers. Investigation of supermolecular arrangement  
in chemical fibers and means of increasing their strength

SOURCE: Khimicheskiye volokna, no. 6, 1965, 22-26

TOPIC TAGS: polyvinyl alcohol, synthetic fiber, polymer structure,  
elongation, rupture strength, correlation function, NMR, X ray analysis

ABSTRACT: The structural and mechanical properties of polyvinyl alcohol  
fibers were investigated using the range of thermoplasticized stretch  
as the controllable variable. Correlation between these properties  
was shown. Linear correlation was established between the overall  
orientation of the macromolecules in the fiber and orientation of the  
crystallites; between rupture strength and maximum relaxation stress, and  
also between these values and the reciprocal half-width reflection  $\beta_{1/2}$

UDC: 677.744.72

Card 1/2

L 40072-66

ACC NR: AP6012417

and the amount of elongation (up to 450% elongation tested). It was shown that the parameter  $(\beta_{1/2})$  describes the previous history of the samples with respect to macromolecular orientation. NMR studies showed the basic conformation of the polyvinyl alcohol fiber macromolecules is flat trans-zigzag. A combination of different analytical methods (NMR, X-ray, isothermal heating) can be used to study in succession the structure formation processes at different stages of fiber formation. Orig. art. has: 4 equations, 8 figures and 2 tables.

SUB CODE: 07,11/ SUBM DATE: 09Jun64/ ORIG REF: 011/ OTH REF: 003

Card 2/2 11b

L 27116-66 INT(1)/T JK

ACC NR: AP60C4869 (N) SOURCE CODE: UR/0402/65/000/005/0613/0614

AUTHOR: Noskov, F. S.; Boldasov, V. K.; Gol'din, R. B.; Yermakov, N. V.; Volkova, L. A.

33  
32  
8

ORG: Military Medical Academy im. S. M. Kirov, Order of Lenin, Leningrad (Voyennomeditsinskaya ordena Lenina akademiya)

TITLE: Contrast medium for immunofluorescent detection of adenoviruses in cell cultures of guinea pig kidneys

SOURCE: Voprosy virusologii, no. 5, 1965, 613-614

TOPIC TAGS: virus disease, animal disease, experiment animal, ~~test method~~, ~~diagnosis~~ serum, cytology, antigens, microscopy

ABSTRACT: Bovine serum albumin labeled with sulforhodamine B fluoride was tested as a contrast medium for adeovirus type 4 infected guinea pig kidney cells stained with fluorescein. The infected cells were exposed to the specific rabbit immune globulin, then added with fluorescein isothiocyanate at a rate of 10 mg fluorochrome per 1 g protein. The phosphate buffered serum albumin was first conjugated with freshly synthesized sulforhodamine B fluoride in an alkaline medium, then purified. The fixated adenovirus preparations were treated

Card 1/2

UDC: 576.858.5.093.3.073.4

ACC NR: AP6004869

with the mixture of conjugates for 20 minutes, then studied under the luminescent microscope. Normal cells were brick red, the protoplasm lighter than the nucleus; the infected nuclei had a specific green color with bright green sparkling enclosures. Upon single step processing of the preparations, the specific interaction of virus antigen-antibody was not inhibited by the presence of the labeled albumin. The physicochemical absorption of labeled albumin on cells led to nonspecific staining of the background (cells containing no virus antibodies) which did not depress specific fluorescence. This method also permits the detection of single infected cells. Its use is recommended. "The sulforhodamine B fluoride was placed at our disposal by Prof. I. S. Ioffe whom we wish to thank for his courtesy". Orig. art. has: none.

SUB CODE: 06/ SUBM DATE: 26Nov64/ OTH REF: 006

Card 2/2 *fw*

VOLKOVA, L.A.

PHASE I BOOK EXPLOITATION 1043

Ural'skiy zavod tyazhelogo mashinostroyeniya, Sverdlovsk

Proizvodstvo stali (Steel Production) Moscow, Mashgiz, 1958. 154 p.  
(Series: Its Sbornik statey, vyp. 3) 4,000 copies printed.

Ed.: Zamotayev, S.P., Engineer; Tech. Ed.: Dugina, N.A.; Executive  
Ed. (Ural-Siberian Division, Mashgiz): Kaletina, A.V., Engineer.

**PURPOSE:** This book, published on the 25th anniversary of the Uralmashzavod (Ural Heavy Machine-building Plant imeni S. Ordzhonikidze) is intended for engineers, technicians and scientific workers concerned with the production of steel.

**COVERAGE:** The basic stages in the development of steel making during the 25 years of the existence of the Ural Heavy Machine-building Plant are described. The following achievements in the field of steel making technology are described: vacuum pouring, resulting in an improved quality of steel; production of ingots in a variety of special shapes; steel making in open-hearth and electric furnaces. Research work done by the central laboratory of the plant, including a study of the causes of the formation of internal cracks in heat-resistant steel ingots

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Steel Production

1043

and a study of nonmetallic inclusions, macrostructure and intracrystalline liquation in large ingots, is also discussed.

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Steel Production

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AVAILABLE: Library of Congress

Card 3/3

GO/fal  
1-8-59

VOLKOVA, Lyudmila Andreyevna; VOLPIANSKIY, L.M., inzh., red.;  
DUCINA, N.A., tekhn. red.

[Metal melting in induction furnaces] Plavka metalla v induktsionnykh pechakh. Pod red. L.M.Volpianskogo. Moskva, Mashgiz, 1961. 59 p. (Nauchno-populiarnaya biblioteka rabochego-liteishchika, no.17) (MIRA 15:3)  
(Electric furnaces)  
(Foundries--Equipment and supplies)

KLENKOVA, N.I.; KULAKOVA, O.M.; VOLKOVA, L.A.

Determination of the density and other properties of cellulose fibers characteristic of their structure in relation to reactivity. Zhur.-prikl.khim. 36 no.1:166-176 Ja '63. (MIRA 16:5)

1. Institut vysokomolekulyarnykh soedineniy AN SSSR.  
(Cellulose)

SMIRNOVA, A.V.; KRASNOVA, A.K.; VOLKOVA, L.A.; MAKAROVA, V.N.

Methods for the exposure and determination of the grain size  
of austenite in steel. Standartizatsiia 27 no.5:23-28 My '63.  
(MIRA 16:6)

(Austenite—Metallography)

PETROPAVLOVSKIY, G.A.; VASIL'YEVA, G.G.; VOLKOVA, L.A.

Determination of structure changes in cellulose at the initial  
esterification stages by X-ray diffraction analysis. Zhur.  
prikl. khim. 37 no.9:2008-2016 S '64.

(MIRA 17:10)

KIENKOVA, N.I.; KULAKOVA, O.M.; VOLKOVA, L.A.

Structure characteristics of weakly hydroxyethylated cellulose  
fibers as related to their high reactivity. Zhur. prikl. Khim.  
37 no.9:2023-2028 S '64. (MIRA 17:10)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

SOROKIN, A.Ya.; ANDREYEVA, N.A.; VOLKOVA, L.A.; KOL'TSOV, A.I.; FUDAKOV,  
A.P.; PYRKOV, L.M.; FRENKEL', S.Ya.

Correlation of the structural and mechanical characteristics of  
polyvinyl alcohol fibers. Khim. volok. no.6:22-26 '65.

(MIRA 18:12)

1., Institut vysokomolekulyarnykh soyedineniy AN SSSR.

Submitted June 9, 1964.

KLENKOVA, N.I.; KULAKOVA, O.M.; MATVEYEVA, N.A.; VOLKOVA, L.A.;  
TSIMARA, N.D.

Effect of methylamine in various media on the structure and  
reactivity of cotton fibers. Zhur. prikl. khim. 38 no.5:1077-  
1084 My '65. (MIRA 18:11)

1. Institut vysokomolekulyarnykh soyedineniy AN SSSR.

SOKOL'SKIY, D.V.; VOLKOVA, L.D.

Hydrogenation of mesityl oxide in mixed solvents. Izv. AN Kazakh SSR.  
Ser.tekh.i khim.nauk. no.1:3-7. '63. (MIRA 17:3).

SOKOL'SKIY, D.V.; VOLKOVA, L.P.

Hydrogenation of acrylonitrile in mixed solvents on a Ni-skeletal catalyst. Izv. AN Kazakh. SSR. Ser. khim. nauk 14 no.1:69-74 Ja-Mr '64. (MIRA 18:3)

VOLKOVA, L.D.; SOKOL'SKIY, D.V.

Hydrogenation of nitriles with conjugated bonds in mixed solvents.

Izv. AN Kazakh. SSR. Ser. khim. nauk 15 no.1:52-57 Ja-Mr '65.

(MIRA 18:12)

1. Submitted Nov. 11, 1964.

100903-66 EWT(m)/ENA(d)/EWP(j)/T RM

ACCESSION NR: AP5020205

UR/0332/65/000/008/0014/0017

42 665.3/35:661.185.1

AUTHORS: <sup>44</sup>Moskvina, G. I. (Engineer); Volkova, L. D. (Engineer) <sup>14</sup>  
<sup>14</sup>

TITLE: Powdery cleansing agents on the basis of alkylsulfates, obtained by direct sulfation of nonsaponifiables - II alcohols. Communication 3 <sup>14</sup>  
<sup>14</sup>

SOURCE: Maslozhirovaya promyshlennost', no. 8, 1965, 14-17

TOPIC TAGS: detergent, <sup>44</sup>alkylsulfate, sulfation, cleaning compound

ABSTRACT: In their previous paper (Maslozhirovaya promyshlennost', 1965, 6), the authors noted the dependence of properties of the nonsaponifiables-II alcohols on the boiling point. In this present work, the effect of inorganic salts on the cleansing ability and surface-active properties of alkylsulfates derived from the nonsaponifiable-II fraction of alcohols boiling at 350, 375, and 400C was determined. The composition of the cleansing agents studied is given in Table 1 on the Enclosure. The cleansing ability was tested on wool, silk, capron, and cotton fabrics, and was compared with the performance of detergents "Novost" and "Progress." It was found that cleansing ability increases with the boiling point of the nonsaponifiable-II alcohol fraction. Orig. art. has: 5 tables.

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100903-66

ACCESSION NR: AP5020205

ASSOCIATION: Volgodonskiy filial VNIISINZha (Volgodon Branch of VNIISINZh) 44 <sup>2</sup>

SUBMITTED: 00

ENCL: 01

SUB CODE: 00

NO REF SOV: 005

OTHER: 000

Card 2/3

100903-66

ACCESSION NR: AP5020205

ENCLOSURE: 01

Table 1

A	B	C	D	E
Алкилсуль- фаты из спир- тов неомылае- мых-II, выки- павших до температуры, °C	Содержание алкилсуль- фатов, %	Содержание несульфиро- ванных сое- динений, %	K*	Содержи- ние суль- фата нат- рия, %
350	34,75	1,7	4,89	2,30
375	34,00	1,14	3,35	2,32
400	34,00	0,70	2,06	2,00

- A - Alkylsulfates from alcohols of the nonsaponifiable-II fraction boiling at the temperature, °C.  
 B - Alkylsulfate content, %.  
 C - Nonsulfated compounds content, %.  
 D - K\* - ratio of the nonsulfated substances to the active substance, %.  
 E - Sodium sulfate content, %.

Card 3/3 DP

L 53751-65 ENT(m)/EPP(c)/EPR/EMP(j)/T/EWA(c) Pc-l/Pr-l/Ps-l Wn/KM  
 ACCESSION NR: AP5012628 UR/0360/65/000/001/0052/0057 28

AUTHOR: Volkova, L. D.; Sokol'skiy, D. V.

TITLE: Hydrogenation of nitriles with conjugated bonds in mixed solvents

SOURCE: IN KazSSR. Izvestiya. Seriya khimicheskikh nauk, no. 1, 1965, 52-57

TOPIC TAGS: methacrylonitrile, acrylonitrile, hydrogenation, catalysis

ABSTRACT: The authors studied the hydrogenation of methacrylonitrile and acrylonitrile on Pd and Pt black, and of methacrylonitrile on Raney nickel in *n*-butyl alcohol, dimethylformamide, and mixtures of the two. Three to five portions of the compound studied were hydrogenated in succession on the same batch of catalyst. Kinetic and potentiometric curves show that the hydrogenation of methacrylonitrile in *n*-butyl alcohol proceeds at a gradually decreasing rate, and the reaction is first-order. In dimethylformamide, the reaction is considerably slower, and the reaction order changes. In mixtures, the rate of hydrogenation decreases with rising dimethylformamide content; this is thought to be caused by the polar properties of this solvent. The activation energy of the hydrogenation increases from *n*-butyl alcohol to dimethylformamide. On Pd black, both nitriles are converted to saturated

Card 1/2

L 53751-65

ACCESSION NR: AP5012828

nitrides via a zero-order reaction. The effect of dimethylformamide is the same as in the case of nickel. Platinum was the least selective hydrogenation catalyst for acrylonitrile and methacrylonitrile. Thus, the rate and selectivity of hydrogenation of unsaturated nitrides of the fatty acid series are appreciably affected by the catalyst, nature of the solvent used, and structure of the nitrides. Orig. art. has: 6 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 11Nov64

ENCL: 00

SUB CODE: GC, OC

NO REF SOV: 003

OTHER: 003

484  
Card 2/2

USSR:

Study of the system of lithium and sodium carbonates. N. N. Vokov and L. P. Vokova. *Izv. Akad. Nauk SSSR, Khim. Fiz. Khim. Sveta*, No. 1, 65-6 (1963); *Russ. J. Chem. Phys.*, No. 1, 65-6 (1963); *Russ. J. Chem. Phys.*, No. 1, 65-6 (1963).  
 The liquidus surface of the system Li, Na,  $\text{SO}_4$ ,  $\text{CO}_3$  contained a crystal field of continuous solid, of  $\text{Na}_2\text{CO}_3$  and  $\text{Na}_2\text{SO}_4$ , fields of  $\text{Li}_2\text{SO}_4$  and  $\text{Li}_2\text{CO}_3$ , and of the chem. compds.  $\text{Li}_2\text{SO}_4 \cdot 2\text{Na}_2\text{SO}_4$ ,  $\text{Li}_2\text{SO}_4 \cdot \text{Na}_2\text{SO}_4$ , and  $\text{Li}_2\text{CO}_3 \cdot \text{Na}_2\text{CO}_3$ . The system had 2 triple eutectic points.  
 M. Hosh

6  
 M  
 ① J

SOV/137-58-8-16613

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 53 (USSR)

AUTHORS: Volkova, L., Dausheva, M.

TITLE: Cementation of Certain Metals from Their Carbonates by a Sodium Amalgam (Tsementatsiya nekotorykh metallov iz ikh karbonatov amal'gamoy natriya)

PERIODICAL: Byul. nauchn. stud. o-va. Kazakhsk. un-t, 1957, Nr 7, pp 14-16

ABSTRACT: Qualitative experiments were made in the displacement of a number of metals from their carbonates by an Na amalgam (A). The experiments were run as follows: 5 cc 1% Na A was shaken in a separating funnel for 5 min with suspensions of 0.5 milliequivalents of carbonates of various metals in 5 cc of distilled water. The A was then separated from the solution. The solution was examined for content of the corresponding cation. The A was washed with water and treated successively by HCl and a solution of mercurous nitrate, the metal going into the A being separated out of solution. In terms of their ratio to the Na A, the metal carbonates may be divided into 3 groups; viz.,

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a) carbonates the metals of which undergo complete

SOV/137-58-8-16613

Cementation of Certain Metals from Their Carbonates (cont.)

cementation with formation of A, these being the carbonates of Ag, Cu, Pb, and Zn; b) carbonates the metals of which undergo partial cementation, these being the carbonates of Ni, Co, and Mn, and c) carbonates the metals of which do not undergo cementation, these being the carbonates of Mg, Ba, Sr, and Ca.

G.S.

1. Metals--Separation
2. Sodium alloys--Chemical reactions
3. Metal carbonates--Chemical reactions

Card 2/2

VOLKOVA, L.F.

Sulfate-carbonate exchange in alkali metal fusions. Izv. Sib.  
otd. AN SSSR no.3:60-64 '58. (MIRA 11:8)

1. Irkutskiy sel'skokhozyaystvennyy institut.  
(Alkali metal sulfates) (Alkali metal carbonates) (Fusion)

VOLKOVA, L.F.

~~At: SSSR no. 7:33-35 '58.~~  
Ternary system of lithium, sodium and potassium carbonates. Izv. Sib.  
otd. AN SSSR no. 7:33-35 '58. (MIRA 11:9)

1. Irkutskiy sel'skokhozyaystvennyy institut.  
(Alkali metal carbonates) (Fusion)

ACCESSION NR: APH010878

S/0210/63/000/011/0106/0113

AUTHORS: Poplavskaia, L. N.; Volkova, L. F.; Zhuk, F. D.

TITLE: Seismicity of the Far East for 1961

SOURCE: Geologiya i geofizika, no. 11, 1963, 106-113

TOPIC TAGS: seismicity, Far East, epicenter, deep focus, earthquake, deep focus earthquake

ABSTRACT: This paper is a summary of instrumental and macroseismic data for earthquakes in the Far East during 1961. Epicenters were located by the methods considered most effective for that region: 1 - average lines, 2 - equal distances from stations, 3 - intersections for  $t_p$ , and 4 - master curves for isochrons of  $t_p$  and S-P. The first was most commonly used in combination with the third. The accuracy of locating epicenters was generally within 20-25 km. The epicenter of deep-focus earthquakes was easily located by one of the above methods. The depth of focus was generally found by difference in the S-P and sP-P phases, but difficulties were encountered because, firstly, the S-P travel-time curves for the depth 20-50 km within the epicentral interval  $1.5-15^\circ$  were difficult to distinguish and,

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ACCESSION NR: AP4010878

secondly, the separation of the sP phase on seismograms of Kurile-Kamchatka earthquakes was frequently impossible. Depth was therefore generally determined by data from near (up to 100 km) and distant (over 1500 km) stations. During the indicated period (1961), 6 earthquakes of group II were recorded ( $7\frac{1}{2} > M \geq 6\frac{1}{2}$ ), 18 of group III ( $6\frac{1}{2} > M \geq 5\frac{1}{4}$ ), 86 of group IV ( $5\frac{1}{4} > M \geq 4\frac{1}{4}$ ), and 132 of group V ( $M < 4$ ). Seismicity for 1961 in the Kamchatka region was considerably lower than in preceding years. All earthquakes with a scale reading greater than 5 are shown in a table. The two largest were: 1 - the earthquake of 12 February, with  $M = 7$ , on the island of Shikotan; 80 aftershocks with  $3\frac{1}{2} \leq M \leq 6$  were recorded within 21 hours after the main shock; and 2 - the earthquake of 11 August, 50 km south of Nemuro, with  $M = 6\frac{3}{4}$ . "The authors are deeply grateful to R. Z. Tarakanov and S. L. Solov'yev for valuable suggestions during preparation of this paper." Orig. art. has: 6 figures, 4 tables, and 2 formulas.

ASSOCIATION: Sakhalinskiy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo otdeleniya AN SSSR, pos. Novo-Aleksandrovsk (Sakhalin Joint Scientific Research Institute of the Siberian Department AN SSSR)

SUBMITTED: 11Dec62

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: AS

NO REF SOV: 009

OTHER: 002

Card 2/2

26519  
S/065/61/000/008/002/009  
E030/E135

11,0140

AUTHORS: Masagutov, R.M., Berg, G.A., and Volkova, L.I.  
TITLE: The effect of degree of hydrofining feedstock for  
catalytic cracking  
PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1961, No.8,  
pp. 8-13

TEXT: This experimental investigation was to improve the  
yield and quality on cat. cracking high-sulphur, high-coking  
crudes such as Chekmagush and Arlan; for such crudes, hydrofining  
is an obvious approach. Work was on the laboratory scale. The  
hydrofiner unit held 200 ml aluminocobalt molybdate catalyst;  
and the cat. cracker used alumino-silicate catalyst, of activity  
32-33 points. Cat. cracker space velocities were 0.7, 1.0 or  
1.5 per hour, and the cycle time 30 minutes. For hydrofining,  
optimum conditions were virtually independent of space velocity  
and consisted of 50 kg/cm<sup>2</sup> gas pressure and 370°C temperature.  
Comparing hydrofined and unhydrofined material under cracking  
conditions with identical coke formation (4.5% weight), the output  
of benzine fraction was increased from 36 to 61.5%.  
Card 1/2

26519

The effect of degree of hydrofining..

S/065/61/000/008/002/009  
E030/E135

In order to obtain 1% sulphur diesel fuel from Chekmagush feed, it was necessary to hydrofine at 370°C, 50 kg/cm<sup>2</sup> pressure, and 0.8-1.0 per hour space velocity.

There are 7 figures and 2 tables, and 22 references: 10 Soviet and 12 non-Soviet. The English-language references read as follows:

Ref.13: Viland, C.K. Petroleum Refiner, 36, No.3, 197-220, 1958;  
Ref.14: Samnelson, G.I., Woelflin, W. Petr. Ref., 38, No.3, 211-223, 1959; Ref.16: Abbott, M.D., Archibald, R.C., Dorn, R.W. Oil and Gas J., 56, No.20, 144, 1958; Williams, C.C., Abbott, M.D. Petrol. Eng. 32, No.5, 25-28, 1960.

ASSOCIATION: BashNII NP

Card 2/2

ANDREYEV, D.Ya.; BRENTS, A.D.; VOLKOVA, I.I.I.; MAKHAVEYEV, M.V.

Economic effectiveness of capital investments in the production,  
gathering, and refinement of petroleum gas. Gaz. delo no.6:30-33  
'65. (MIRA 18:8)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut neftekhimi-  
cheskoy i gazovoy promyshlennosti im. akademika Gutkina.

L 13292-66 EWT(m)/EWP(j) RM  
ACC NR: AP6000325 (A)

SOURCE CODE: UR/0286/65/000/021/0012/0012

INVENTOR: Volkova, L. I.; Zaitova, A. Ya.; Ioakimis, A. A.; Mochal'nikova, T. P.;  
Nazarova, L. Yu.; Nazarov, V. I.; Pryakhina, M. S.; Petrov, V. N.; Rachkovskiy, E.  
E.; Savel'yev, A. P.; Syrova, A. A.; Tikhonovskaya, S. G.

32  
B

ORG: none

TITLE: A method for producing normal butanol by synthesis from ethyl alcohol.  
Class 12, No. 175929 [announced by the Bashkir Scientific Research Institute for  
Petroleum Refining (Bashkirskiy nauchno-issledovatel'skiy institut po pererabotke  
nefti)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 12

TOPIC TAGS: catalysis, butanol, ethyl alcohol

ABSTRACT: This Author's Certificate introduces: 1. A method for producing normal butanol by synthesis from ethyl alcohol on a catalyst. The process is done in a single stage by using a catalyst consisting of aluminum oxide, magnesium oxide, silicon oxide and a salt or oxide of an alkali metal. 2. A modification of this

Card 1/2

UDC: 66.097.3 : 547.264.07

L 13292-66

ACC NR: AP6000325

method in which the catalyst contains from 5 to 80 % aluminum oxide, from 95 to 10 % magnesium oxide, from 0 to 50 % silicon oxide and from 0 to 5 % of a salt or oxide of an alkali metal.

SUB CODE: 07/ SUBM DATE: 11Apr63/ ORIG REF: 000/ OTH REF: 000

jw  
Card 2/2

5/744/62/000/005/002/003  
1060/1260

AUTHORS: Masagutov, R.M., Berg, G.A., and Volkova, L.I.  
TITLE: Preliminary purification by hydrogenation of crude oils treated by catalytic cracking  
SOURCE: Ufa. Bashkirskiy nauchno-issledovatel'skiy institut po pererabotke nefi. Trudy. no. 5. 1962. Sornistyie nefi i produkty ikh pererabotki. 77-88

TEXT: The process of catalytic cracking is particularly sensitive to impurities contained in crude oils, like nitrogen and various metals, which tend to poison the catalyst, with a consequent increase of the amount of coke at the expense of lighter fractions.

The author concludes that the best method of purification is by hydrogenation, apart from the drawback of requiring large amounts of hydrogen, depending on the quantities of crude treated and the intensity of the hydrogenation process.

Experiments by the author give the optimum conditions for purification prior to catalytic cracking as: pressure 50 atm., temperature 370°C,

Card 1/2

Preliminary purification...

S/744/62/000/005/002/003  
1060/1260

circulation of hydrogen 800 ml/l of crude oil, volumetric velocity of crude supply from 0.5 to 10 hrs, <sup>-1</sup> depending on the required intensity of hydro-generation.

There are 8 figures and 2 tables.

Card 1/1

MASAGUTOV, R.M.; BERG, G.A.; VOLKOVA, L.I.; PLOTNIKOVA, L.I.; PECHNIKOVA,  
T.N.; ZAGRYADSKAYA, L.M.; MIRONOV, A.A.

Combining the preparation of raw stocks for catalytic cracking  
with the production of neutralized black sludge. Trudy Bash NIINP  
no.5:88-93 '62. (MIRA 17:10)

MASAGUTOV, R.M.; BERG, G.A.; VOLKOVA, L.I.

Effect of the depth of stock hydrofining on the results of  
catalytic cracking. Khim.i tekhnol.i masel 6 no.8:8-13  
Ag '61. (MIRA 14:8)

1. Bashkirskiy nauchno-issledovatel'skiy institut po pererabotke  
nefti.

(Petroleum--Refining)  
(Cracking process)

EYGENSON, A.S.; MASAGUTOV, R.M.; ZAITOVA, A. Ya.; VOLKOVA, L.I.; BERG, G.A.;  
YEFIMOVA, A.K.

Effect of some physicochemical properties of raw stock on  
catalytic cracking indices. Trudy. Bash NII NP no.3:19-32  
'60. (MIRA 14:4)  
(Cracking process)

MASHTAKOV, S.M.; LEDOVSKIY, S.Ya.; VOLKOVA, L.I.

Experiments in studying the physiological action of derivatives of 3-amino-1,2,4-triazole. Dokl. AN BSSR 3 no.10:422-425  
0 '59. (MIRA 13:2)

1. Predstavleno akademikom AN BSSR I.D.Yurkevichem.  
(Triazole--Physiological effect)

VOLKOV A, L. I.

3(9)

PHASE I BOOK EXPLOITATION

SOV/3012

Akademiya nauk SSSR. Morskoy gidrofizicheskiy institut

Fizika morya (Physics of the Sea) Moscow, Izd-vo AN SSSR, 1959.  
95 p. (Series: Its: Trudy, Vol 17) Errata slip inserted.  
1,300 copies printed.

Ed.: A. A. Ivanov, Doctor of Physical and Mathematical Sciences;  
Ed. of Publishing House: N. D. Yershova; Tech. Ed.: I. N. Guseva.

PURPOSE: This issue of the Institute's Transactions is intended for oceanographers, hydrographers, and geophysicists.

COVERAGE: This collection of articles treats problems in physics of the sea. Individual papers discuss wave and tide hydrodynamics, free surface perturbations, the Black Sea tsunami of 1927, and the characteristics of the vertical stability of water masses in the Iceland-Faroe Islands-Great Britain area. A paper by I. I. Stas' proposes solving the problem of the decreasing level of the Caspian Sea by diverting waters of the

Card 1/3

Physics of the Sea (Cont.)

SOV/3012

Sea of Azov by canal through the Kumo-Manychskaya valley.  
References accompany individual articles.

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Sekerzh-Zen'kovich, Ya. I. Zonal Standing Waves of Finite Amplitude on the Surface of a Spherical Layer of Liquid	3
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Volkova, L. I. Tides in a Channel Encircling the Globe	41
Sekerzh-Zen'kovich, T. Ya. Distribution of Initial Perturbation Along a Free Surface and on the Boundary Surface of a Liquid Consisting of Two Layers of Different Density	48
Grigorash, Z. K. Black Sea Tsunami in the Year 1927, Based on Mareographic Recordings	59

Card 2/3

Physics of the Sea (Cont.)

SOV/3012

Stas', I. I. The Problem of Maintaining a Constant Level  
in the Caspian Sea

68

Vladimirtsev, Yu. A., A. B. Zaklinskiy, and L. N. Nazaretskiy.  
Characteristics of the Vertical Stability of Water Masses in  
the Northeastern Atlantic During the Autumn and Winter Seasons

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AVAILABLE: Library of Congress

Card 3/3

TM/mmh  
1-28-60

MASAGUTOV, R.M.; BERG, G.A.; VOLKOVA, L.I.

Preparing raw stocks for catalytic cracking by hydropurification.

Trudy Bash NIINP no.5177-98 '62.

(MIRA 17:10)

VOLKOVA, L.I.; SOBOLEVA, A.M.; ADAMOVA, T.K.

Raising geese in Latvia. Ptitsevodstvo 9 no.2:16-17 P '59.  
(MIRA 12:3)

1.Direktor Rzeknenskoj inkubatorno-ptitsevodcheskoy stantsii  
(for Volkova). 2.Direktor Daugavpilskoj inkubatorno-ptitsevodcheskoy  
stantsii (for Soboleva). 3.Glavnyy zooteknik respublikanskoy kontory  
inkubatorno-ptitsevodcheskoy stantsii (for Adamova).  
(Latvia--Geese)

MASAGUTOV, R.M.; SHESTAKOVA, N.M.; MIKHAYLOVA, M.G.; GILYAZEV, N.G.;  
ZAITOVA, A.Ya.; VOLKOVA, L.I.

Effect of temperature during calcination on the mechanical  
strength of catalysts. Khim. i tekhn. topl. i masel 4 no.1:  
69-71. Ja '59. (MIRA 12:1)

1. Bashkirskiy nauchno-issledovatel'skiy institut neftyanoy  
promyshlennosti.

(Catalysts)

VOLKOVA, L. I.

AROMATIZATION OF FRACTIONS OF KAZAKHSTAN PETROLEUM ON OXIDE

CATALYSTS. I. Buvaikina, L.A., Shtol'skii, D.V. and Volkova, L.I. (Uchen. Zap. Kazakh. Univ. (Sci. Mem. Kazakh. Univ.), 1954, vol. 15, 50-57; FU abstr. in Ref. Zh. Khim. (Ref. J. Chem., Moscow), 1955, (19), 4412). The aromatization of n-169 fractions of Kazakhstani crude over oxide catalysts was studied. Of three catalysts used (iron (I), etc. etc./alumina with additions of cerium and potassium oxides (II), and vanadium oxide/alumina (III), the most active in the aromatization of the 145-215° and 110-230°C fractions was II. In the aromatization of the 145-215° fraction over I at 470°, if the space velocity was decreased from 0.739 to 0.159 l./l. of catalyst per hour, the quantity of aromatic hydrocarbons in the catalysts increases from 20 to 4%. In the aromatization of the 110-230° fraction over II, if the space velocity is increased from 0.106 to 0.35 l./l.h., the yield of products which are sulfonated at 530° rises to 54.2%. The productivity of the catalyst is then 15.1 g/l. of catalyst h. In aromatization of the same fraction over III, decreasing the space velocity from 0.6 to 0.8 l./l.h. causes an increase in the yield of products which are sulfonated to 49%.

2

BITYUKOV, Il'ya Il'ich; TALYZOV, Aleksandr Fedorovich; TSERAPIYER,  
L.S., inzh., red.; VOLKOVA, L.I., red.; VELITSYN, B.L.,  
tekhn. red.

[Metal latticed formwork for solid concrete]Metallicheskaia  
setchataia opalubka dlia massivnogo betona. Moskva, Orgenerg-  
stroï, 1961. 47 p. (MIRA 15:8)  
(Concrete construction--Formwork)

MASAGUTOV, R.M.; SHESTAKOVA, N.M.; MIKHAYLOVA, M.G.; GILYAZEV, N.G.;  
ZAITOVA, A.Ya.; VOLKOVA, L.I.

Effect of the firing temperature of a catalyst during preparation  
on its mechanical strength. Trudy Bash NII NP no.3:166-170. '60.  
(MIRA 14:4)

(Catalysts) (Cracking process)

L 12293-63

EPF(c)/EWI(m)/BDS AFFTC/APGC Pr-4 EN/MN  
S/081/63/000/005/050/075 63

AUTHOR: Masagutov, R. M., Berg, G. A. and Volkova, L. I. 61  
TITLE: Preparation of the catalytic cracking raw materials by the  
hydrogenation refining method  
PERIODICAL: Referativnyy zhurnal, Khimiya, no. 5, 1963, 499, abstract 5P146  
(Tr. Bashkirsk, n-i. in-t. po pererabotke nefi, 1962, no. 5,  
77 - 88)

TEXT: After a review of literature the data are presented from experi-  
mental tests in the indicated field, as a result of which there were establi-  
shed the optimum conditions for hydrogenation refining of raw material for  
catalytic cracking: pressure of 50 atm, temp. 370° C, circulation of H<sub>2</sub> 800  
ml/l of raw material, volume speed of feeding of the raw material 0.5 - 10  
hours<sup>-1</sup>, depending on the desired degree of refining. It was shown that,  
under catalytic cracking of refined and unrefined gas oils to an identical  
degree of cracking (output of coke 4.5 % by weight) the output of gasoline from  
refined gas oil is 32 - 61.5 % greater than from unrefined, depending on the  
volume speed of hydrogen refining. It was shown that to obtain fractions of

Card 1/2

L 12293-63

Preparation of the catalytic .....

S/081/63/000/005/050/075

diesel fuel with content of up to 1 % S from gas oil of Chekmagush petroleum it is necessary to subject the last to refining at volume speed of 0.8 - 1 hour<sup>-1</sup>. Hydrogenation of raw material of catalytic cracking leads to an improvement in the material balance of catalytic cracking and to an increase in quality of products. Also, it decreases the contamination of the catalyst by elimination of metals and nitrogen compounds and reduces the corrosion of instruments, as well as improving the conditions for exploitation of the plant by elimination of S compounds. The economic reports indicate that preliminary preparation of raw material for cracking by the hydrogen refining method costs considerably less than hydrogen refining of the catalytic cracking products. The bibliography contains 54 items. A. N.

[Abstractor's note: Complete translation]

Card 2/2

L 12294-63

EPF(c)/ENT(m)/BDS AFFTC/APGC Pr-4 BW/MN

S/081/63/000/005/051/075

67  
64

AUTHOR: Masagutov, R. M., Berg, G. A., Volkova, L. I., Plotnikova, L. I.,  
Technikova, T. N. Zagryadskaya, L. M. and Mironov, A. A.

TITLE: Combinations of preparation of raw material for catalytic crack-  
ing and obtaining of neutralized contact catalyst

PERIODICAL: Referativnyy zhurnal, Khimiya, no. 5, 1963, 499, abstract 5P147 (Tr.  
Hashkirs. n.-t, in-t. po pererabotke neft, 1962, no. 5, 88 - 93)

TEXT: At an experimental plant in 2 l capacity reactor in a mobile layer  
of bulbous aluminosilicated catalyst (KT) at 450° C volume speeds of 0.7, 1.0 and  
1.5 hours<sup>-1</sup>, circulation ratio (KT) 3:1 (index of activity of KT 32 - 33 points)  
experiments were conducted on cracking of purified (so-called "depleted") gas  
oils from a plant for producing neutralized contact catalyst (NChK) and ex-  
tracted vacuum gas oil from a mixture of Shkapov and Romashkin petroleum. In  
the catalytic cracking of acid purified gas oil the extraction of coke is lower  
than in cracking of unrefined gas oils. Gas which forms in cracking of refined  
gas oil contains more propane-propylene and butane-butylene fractions and less

Card 1/2

L 12294-63

3

Combinations of preparation .....

S/081/63/000/005/051/075

H<sub>2</sub>S. Gasoline, extracted in cracking of refined gas oil, contains a smaller amount of S compounds and is more stable during storage. As a result of cracking of refined gas oil a 30 - 40 % fraction of diesel fuel with content of S ≤ 1 % is extracted. The process is economical, which is indicated by calculations conducted by one of the Ufim oil refineriss. A. Nagatkina.

[Abstractor's note: Complete translation]

Card 2/2

YOLKOVA L.M.

44702

24.3/30  
AUTHORS: Granovsky, V.L., Luk'yanov, S.Ya., Spivak, G.V. and Sirotenko, I.G.  
TITLE: Report on the Second All-Union Conference on Gas Electronics  
PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 8, pp 1339 - 1338 (USSR)  
ABSTRACT: The conference was organized by the Ac.Sc.USSR, the Ministry of Higher Education and Moscow State University. It was opened by the chairman of the organizing committee, A.A. Lebedevich. During the plenary sessions a number of survey papers were delivered. The conference was a paper on "Production of Ultra-high Frequency Oscillations in Plasmas".

A survey of the optical method of measurements was given in the papers by V.A. Fabrikant and S.A. Zakharenko. S. Broom of the Massachusetts Institute of Technology gave a survey of the high-frequency methods of the investigation of stationary and non-stationary plasma (see p 1344 in this issue of the journal). A paper titled "Ionization and Ionization Cross-Section in the Collisions of Ions" by M.V. Fedorenko read a paper titled "Elementary Processes of Determining the Motion of Ions in Gas". A paper by Ye. Bedurek (Leningrad) dealt with "The Role of Resonance-Recharging in the Kinetics of Ions". I.S. Stakolnikov considered the initial stages of the development of a plasma (corona-leader, main channel and streamer). S. Kiyafeldin gave a survey of the ignition processes of the discharge in highly rarified gases. The mechanism of the breakdown of a high-vacuum gap was elucidated in a paper by V.L. Granovsky. L. Tonks (USA) expounded a theory of the motion of electrons in a magnetic trap (see p 1318 of the journal). Academician R. Rompe (Eastern Germany) described a number of experiments on non-stationary plasmas conducted by himself.

M. Stenbock (Eastern Germany) gave a generalized theory of plasmas. The conference was divided into six sections. The first section was devoted to the study of plasmas and was connected with the elementary processes in gas discharges. The following papers were read in this section: I.M. Pospelov, "Transformation of Positive Ions into Negative Ions in Rarified Gases"; Ye. M. Fogel' with V.A. Anbulinov and D.V. Pilipenko - "Capture and Loss of Electrons During the Collision of Fast Atoms of Carbon and Hydrogen with the Molecules of Gases".

M.V. Fedorenko et al. - "Dissociation of Molecular Ions of Hydrogen During Collisions in Gases"; G. Szeles - "Cross-sections of Electrons in Multicharged Ions"; I.P. Flaks and Ya. S. Shteynberg - "Investigation of the Mechanism of the Breakdown in Gases"; I.M. Kuznetsov et al. - "Experimental Investigation of the Resonance Recharging in Certain Single-atom Gases and Molecular Gases"; "Qualitative Investigation of Inelastic Collisions of Atoms".

L.M. Yolkova - "Effective Excitation Cross-sections of the Spectral Lines of Potassium and Argon"; I.P. Zapevalov and S.M. Kishko - "Some Results of the Investigation of the Optical Functions of the Excitation Bands of a Negative System".

A.A. Gorbilyov and A.G. Vlasov - "Investigation of the Scattering of the Electrons in a Batatron Chamber". The second section was presided over by S.N. Kiyafeldin and was devoted to the problems of the electrical breakdown in rarified gases and in high vacuum. The following papers were read in this section: G.Ye. Matar-timov and Ye. A. Melnikovich - "Electrostatic Control of the Ignition of Glow-discharge Tubes" (see p 1274 of the journal); S.V. Kiyafeldin - "Investigation of the Breakdown in a High-voltage mercury rectifier (see p 1276 of the journal)"; G.G. Guseva - "Ignition of the Discharge in Non-uniform Fields at Low Gas Pressures" (see p 1260 of the journal). A.S. Soboleva and S.N. Kiyafeldin - "The Discharge Phenomena Between a Point and a Plane at Gas Pressures of  $10^{-3}$  -  $10^{-4}$  mm Hg".

VOLKOVA, L.M.

MERINA, V.M., kand.med.nauk; VOLKOVA, L.M.

Diagnostic significance of diastasuria in acute pancreatitis [with summary in English, p.158], Vest.khir. 79 no.7:36-42 J1 '57.

(MIRA 10:10)

1. Iz 2-y kafedry khirurgii (zav. - prof. G.A.Gomzyakov) Lenin-gradskogo gosudarstvennogo instituta usovershenstvovaniya vrachev imeni S.M.Kirova i khirurgicheskogo otdeleniya bol'nitay im. Lenina (glavnyy vrach - V.S.Razumikhin)

(AMYLASES, in urine

diastase in acute pancreatitis (Rus))

(PANCREATITIS, urine in,

diastase (Rus))

*Vol Kova, L. 119.*

USSR/Electronics - Electronic and Ionic Emission

H-2

Abs Jour : Referat Zhur - Fizika, No 5, 1957, 12289

Author : Volkova, L.M.

Inst : Moscow State University, Moscow

Title : Secondary Electron Emission from Tungsten Carbide.

Orig Pub : Radiotekhn. i elektronika, 1956, 1, No 4, 535-536

Abstract : An investigation was made of the secondary electron emission from tungsten carbide ( $W_2C$ ). A coating of  $W_2C$  with addition of 6% Co, with a thickness of approximately  $2 \times 10^{-2}$  mm, was placed over a tantalum backing. Measurements were carried out with the spherical-capacitor method, and the working pressure in the instrument was  $5 \times 10^{-7}$  mm mercury. The dependence of the coefficient of secondary-electron emission,  $\sigma$ , on the energy of the primary electrons  $U_p$ , and the distribution of the secondary electrons by

Card 1/2

SOV/51-6-3-1/28

AUTHOR: Volkova, L.M.

TITLE: Effective Cross-Sections of Excitation of Potassium Spectral Lines (Effektivnyye secheniya vozbuzhdeniya spektral'nykh liniy kaliya)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 3, pp 273-278 (USSR)

ABSTRACT: A Henle-type tube with truncated-cone electrodes was used to study the dependence of the effective excitation cross-sections on the incident electron beam energy for eleven lines of potassium lying in the region 4000 - 4300 Å. The electron beams were monochromatic to within 1 eV. Potassium was purified by multiple sublimation. It was deposited in a branch tube and heated to 127.5°C, to produce a vapour pressure of  $1.3 \times 10^{-4}$  mm Hg. At this pressure the mean free path of 27 eV electrons is 21 cm. Such a long path ensured an absence of multiple collisions in the excitation region, which was only 0.8 cm long. The absence of multiple collisions was confirmed by the fact that all the Card 1/3 spark lines of potassium (cf. Figs.3-5) appeared first at

SOV/51-6-3-1/28

Effective Cross-Sections of Excitation of Potassium Spectral Lines

electron beam energies equal to the sum of the ionization and excitation potentials. The arc lines (Fig.6) appeared when the electron energy was equal to the excitation potential. The absolute values of the excitation cross-sections for 60 eV electrons were found by comparison of the excited line density on a photographic record with the continuous spectrum of a tungsten lamp with known emission spectrum. These cross-sections ( $q_{ik}$ , in units of  $10^{-19} \text{ cm}^2$ ) are given for eleven potassium lines in col.3 of a table on p 276. Figs.3-6 show the dependences of the excitation cross-section on the electron energy (in eV) for three spark lines at 4186.23 Å (Fig.3), 4263.48 Å (Fig.4) and 4115 Å (Fig.5), as well as an arc doublet 4044.14/4047.20 Å (Fig.6). The lines were recorded photographically using an ISP-51 spectrograph, or photoelectrically using the same spectrograph

Card 2/3 and a PS-381 collimator. There are 6 figures, 1 table

SOV/51-6-3-1/28

Effective Cross-Sections of Excitation of Potassium Spectral Lines

and 7 references, of which 2 are Soviet, 4 English and  
1 German.

SUBMITTED: March 3, 1958

Card 3/3

24 (7).  
AUTHOR:

Volkova, L. M.

SOV/48-23-5-8/25

TITLE:

The Effective Cross Sections of the Excitation of Some Spectral Lines of Potassium and Argon

PERIODICAL:

Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 8, pp 968 - 970 (USSR)

ABSTRACT:

In the present paper the dependence of the excitation cross sections of some spectral lines of argon and potassium on the energy of incident electrons is determined. Measurements of potassium were carried out by photometric- as well as by photoelectric methods. Only photographic methods were used on argon. In the diagrams of figures 1 and 2 the excitation curves for both elements for two lines each are shown. Further, the dependence of the excitation cross sections for both elements on the energy of incident electrons for one line each of both elements is shown by the diagrams of figures 3 and 4. According to other papers the electron figuration - altogether nine lines before and after the transition - are then compiled; with respect to the method of measurement of the cross sections of the lines, the paper of S. E. Frish (Ref 6) is referred to.

Card 1/2

The Effective Cross Sections of the Excitation of  
Some Spectral Lines of Potassium and Argon

SOV/48-23-8-8/25

There are 4 figures and 6 references, 1 of which is Soviet.

ASSOCIATION: Moskovskiy gos. universitet im. M. V. Lomonosova, Fizicheskiy  
fakul'tet (Moscow State University imeni M. V. Lomonosov,  
Physics Department)

Card 2/2

ACCESSION NR: AR4039970

S/0299/64/000/009/0005/0005

B

SOURCE: Ref. zh. Biol. Sv. t., Abs. 5228

AUTHOR: Rozhkov, A. S.; Verzhutskiy, B. N.; Byalaya, I. V.;  
Volkova, L. M.

TITLE: A study of relationships between phenological phenomena in  
East Siberia. Report I. Kyrmsenskaya valley (Bayandayevskiy rayon  
of Irkutsk oblast'), May-June 1960

CITED SOURCE: Biol. Vost.-Sib. fenol. komis., vyp. 2-3, 1963, 42-46

TOPIC TAGS: East Siberia, phenology

TRANSLATION: A study of relationships between phenological dates in  
a seasonal rhythm enables the finding of indicators of important  
moments in plant and animal life which are difficult to record and  
facilitates the adoption of timely preventive measures against  
harmful insects.

SUB CODE: L3

ENCL: 00

Card 1/1

Volkova, L. M.

Chemical Abstr.  
Vol. 48 No. 6  
Mar. 25, 1954  
Organic Chemistry

✓ Catalytic alkylation of benzene with ethyl and propyl alcohols. M. B. Terava-Pollar, D. I. Levi, L. M. Volkova, and M. B. Kuimova (M. V. Lomonosov State Univ., Moscow). *Doklady Akad. Nauk S.S.S.R.* 99, 405-8 (1953).—The reaction of EtOH with  $C_6H_6$  over com. aluminosilicate is best at 460°. With a 1:3 molar ratio at space velocity 0.66, the yield is 15%; based on the ROH; at 0.03 space velocity, it rises to 28%. Pure EtPh is readily obtained from the alkylate. With iso-PrOH the optimum temp. is 325°, space velocity 0.69 and ratio 4:1 ( $C_6H_6$ :ROH), when the yield reaches 64%; pure iso-PrPh is readily obtained by distn. PrOH also yields iso-PrPh, but only in 44-0% yield. G. M. Kozlovskii

VOLKOVA L. M.

USSR .

Synthesis of (chloromethyl)alkoxysilanes and the replacement of their halogen by ester groups. K. A. Andrianov, L. I. Makarova, L. M. Volkova, and V. A. Odintsov. *Doklady Akad. Nauk S.S.S.R.* 93, 269-72 (1954).  $\text{ClCH}_2\text{SiCl}_3$  (95 g.) treated over 1 hr. with 100 g.  $\text{iso-PrOH}$ , the mixt. heated 5 hrs. to  $120^\circ$ , and the product distd. yielded 86 g. (59%)  $(\text{iso-PrO})_2\text{SiCH}_2\text{Cl}$ , b.  $195-8^\circ$ ,  $n_D^{20}$  1.4145,  $d_4^{20}$  0.9836. Similarly were prepd. the following (% yield, b.p.,  $n_D^{20}$ , and  $d_4^{20}$  given):  $(\text{iso-BuO})_2\text{SiCH}_2\text{Cl}$ , 82,  $234-7^\circ$ , 1.4235, 0.9577;  $(\text{BuO})_2\text{SiCH}_2\text{Cl}$ , 72,  $243-4^\circ$ , 1.4270, 0.9325;  $(\text{iso-AmO})_2\text{SiCH}_2\text{Cl}$ , 64.7,  $278-80^\circ$ , 1.4285, 0.9565;  $(\text{iso-PrO})_2\text{SiMeCH}_2\text{Cl}$ , 72,  $177-8^\circ$ , 1.4135, 0.9540;  $(\text{iso-BuO})_2\text{SiMeCH}_2\text{Cl}$ , 72,  $214-15^\circ$ , 1.4220, 0.9472;  $(\text{BuO})_2\text{SiMeCH}_2\text{Cl}$ , 77.5,  $225-7^\circ$ , 1.4260, 0.9547;  $(\text{iso-AmO})_2\text{SiMeCH}_2\text{Cl}$ , 88,  $245-4^\circ$ , 1.4300, 0.9414. To 2.01 g. powd. Na under xylene was added 0.02 g.  $\text{EtOH}$ , the mixt. heated until the Na had reacted, and the suspended  $\text{EtONa}$  treated with 30 g.  $(\text{BuO})_2\text{SiMeCH}_2\text{Cl}$ ; after 5 hrs. at  $100^\circ$  the mixt. yielded 31%  $(\text{BuO})_2\text{SiMeCH}_2\text{OEt}$ , b.  $120-4^\circ$ ,  $n_D^{20}$  1.4168,  $d_4^{20}$  0.9641; similarly was prepd. 45%  $(\text{BuO})_2\text{SiCH}_2\text{OEt}$ , b.  $115-17^\circ$ ,  $n_D^{20}$  1.4237,  $d_4^{20}$  0.9670. G. M. Kosolapoff

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3

VOLKOVA, L. M.

USSR/Chemistry -- Synthesis

Card 1/1 : Pub. 22 - 17/44

Authors : Andrianov, K. A. Memb. corresp. of the Acad. of Sc. USSR, and  
Volkova, L. M.

Title : Synthesis of phenylaminomethylalkoxysilanes

Periodical : Dok. AN SSSR 98/1, 67-70, Sep 1, 1954

Abstract : The reaction of Cl substitution in alpha-chloromethylmethyldialkoxysilanes by the amino group during the reaction of aniline and ethylaniline with silane was investigated. The factors leading to the formation of phenylaminomethylalkoxysilanes during the reaction between chloromethylmethyldialkoxysilanes and aniline or ethyl aniline, are explained. The synthesis of ten hitherto unknown phenylaminomethylmethyldialkoxysilanes and their physico-chemical properties are described. Three references: 2-USA and 1-USSR (1945-1952). Table.

Institution : .....

Submitted : May 14, 1954

VOIKOVA, I.M.

7

linkage was 1.5-1.8 times higher than that of the starting silane, as well as the yield of the polymer. The yield of BuOAc reached about 75% and the residual polymer consisted of links such as  $\text{BuOSiMePhO-}$ ,  $\text{(OBu)OSiMePhO-}$ ; the evolution of BuOAc, variation of  $n$  with time, viscosity, and acid no. of the polymer were shown graphically vs. time. Similar condensations were run with  $\text{MePhSi(OBu)}_3$  and  $\text{B(OAc)}_3$ ,  $\text{Me}_2\text{Si(OBu)}_2$  and  $\text{B(OAc)}_3$ , as well as  $\text{Me}_2\text{Si(OEt)}_2$  and  $\text{B(OAc)}_3$ . The reaction proceeded more rapidly with ethoxysilanes than with butoxysilanes. All polymers obtained were dark viscous oils, sol. in usual org./solvents.

G. M. Kosolapoff

*My ans*

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610020-7

Synthesis of Organotin Compounds Containing Amino

with Lead Nitrate

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001860610020-7"

SOV/62-59-8-5/22

AUTHORS: Andrianov, K. A., Volkova, L. M.

TITLE: The Synthesis and Investigation of the Properties of Liquid 1-n-Hexamethyl (Polyphenyl-Aminomethyl-Methyl)Siloxane  
(Sintez i issledovaniye svoystv zhidkikh 1-n-geksametil (polifenilaminometilmetil)siloksanov)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk, 1958, Nr 8, pp. 941-948 (USSR)

ABSTRACT: There have been little publications on organo-silicon liquid polymers with polar groups in the organic radical. In the introduction the authors mention various papers (Refs 1-6) dealing with these problems. The synthesis of liquid polyorganosiloxanes with amino nitrogen in the organic radical at the silicon atom is not only of theoretical interest but has also practical value (the production of polymer liquids of valuable technical properties). In the present paper the authors describe the production of organosilicon liquid polymers (of the degree of polymerization  $n=1,2,3$ ) with trimethylsiloxy end groups by means of the common hydrolysis (co-hydrolysis) of trimethyl ethoxysilane and substituted aminomethylmethyl diethoxysilanes. The activation energy of the viscous flow was determined and it

Card 1/2

The Synthesis and Investigation of the Properties of Liquid 1- $\alpha$ -Hexamethyl-  
(Polyphenyl-Aminomethyl-Methyl)Siloxane

SOV/62-58-8-5/22

was found that this activation energy depends on the structure of the group introduced into the radical. The groups investigated are (arranged according to their decreasing activation energy):  $\text{ClC}_6\text{H}_4\text{NH} > \text{C}_6\text{H}_5\text{NH} > \text{C}_6\text{H}_5\text{C}_2\text{H}_5\text{N} > (\text{C}_2\text{H}_5)_2\text{N}$ . There are 4 figures, 1 table, and 7 references, 1 of which is Soviet.

ASSOCIATION:

Institut elementoorganicheskikh soedineniy Akademii nauk SSSR  
(Institut of Elemental-Organic Compounds, AS USSR)

SUBMITTED: January 28, 1957

Card 2/2

VOLKOVA, L. M.

L. M. Volkova, K. A. Andrianov, G. Ye. Golubkov, L. N. Makarova, and V. A. Odinetz, "The Introduction of Polar Groups into Organic Radical at the Silicon Atom."

Report presented at the Second All-Union Conference on the Chemistry and Practical Application of Silicon-Organic Compounds held in Leningrad from 25-27 September 1958.  
Zhurnal Prikladnoy khimii, 1959, Nr 1, pp 238-240 (USSR)

5(3)

AUTHORS:

Andrianov, K. A., Volkova, L. M.

SOV/62-59-2-15/40

TITLE:

On the Reaction of  $\alpha$ -Chloro-methyl Ethoxy-silanes With Amines  
(O reaktsii  $\alpha$ -khlormetiletoksisilanov s aminami)

PERIODICAL:

Izvestiya Akademii nauk SSSR, Otdeleniye khimicheskikh nauk,  
1959, Nr 2, pp 278-282 (USSR)

ABSTRACT:

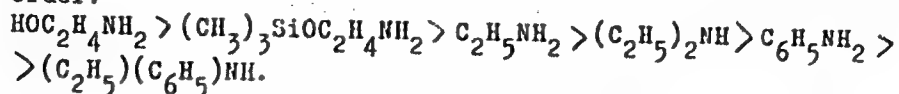
In the present paper the relative reactivity of chlorine in  $\alpha$ -chloro-methyl ethoxy-silanes with various amines was investigated. In contrast with the data hitherto published it was found that chlorine in chloro-methyl ethoxy-silanes is substituted by various amines of the aliphatic and aromatic series at 20°. When ethyl amine is acting on  $\alpha$ -chloro-methyl-dimethyl ethoxy-silane and  $\alpha$ -chloro-methyl-methyl diethoxy-silane, and aniline on  $\alpha$ -chloro-methyl-methyl diethoxy-silane, at 20°, accordingly, ethyl-amino methyl dimethyl ethoxy-silane (65%), ethyl-amino methyl-methyl diethoxy-silane (56%) and phenyl-amino methyl-methyl diethoxy-silane (13.5%), as well as hydrochloric acid, ethyl-amine and aniline were obtained. The first two compounds are new. It was found that the reaction of amines with  $\alpha$ -chloro-methyl ethoxy-silanes at 20° proceeds with dif-

Card 1/2

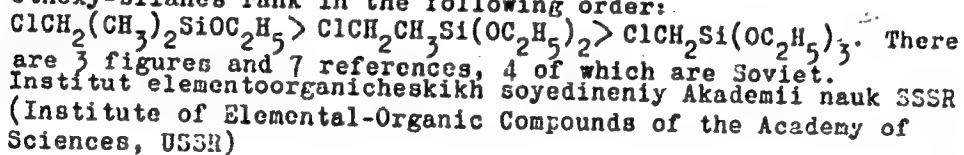
SOV/62-59-2-15/40

On the Reaction of  $\alpha$ -Chloro-methyl Ethoxy-silanes With Amines

ferent velocity, according to the nature of the amine. As to their reactivity the amines investigated rank in the following order:



As to their reaction rate with amines the  $\alpha$ -chloro-methyl ethoxy-silanes rank in the following order:



ASSOCIATION:

SUBMITTED: May 23, 1957

Card 2/2

TERENT'YEV, A.P.; GRACHEVA, R.A.; PREOBRAZHENSKAYA, N.N.; VOLKOVA, L.M.

Synthesis of furan analogs of tobacco alkaloids based on chalcones.  
Zhur.ob.khim. 33 no.12:4006-4011 D '63. (MIRA 17:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

ANDRIANOV, K.A.; VOLKOVA, L.M.; TALANOV, V.N.

Ammonolysis reaction of  $\alpha, \omega$ -dichlorodimethylsiloxane. Izv.  
AN SSSR. Ser. khim. no.11:2045-2047 N '63. (MIRA 17:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.

L 14461-65 JMT(m)/EPF(c)/ENP(j)/T Pc-h/Pr-h ASD(m)-3/AFETR RM

ACCESSION NR: AP4045433

S/0190/64/006/009/1662/1667

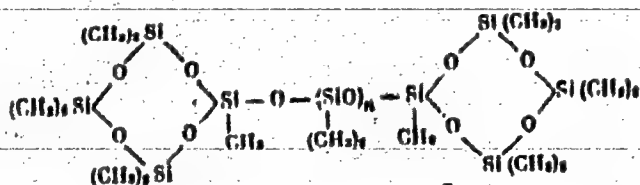
AUTHOR: Andrianov, K. A.; Volkova, Lora M.

TITLE: Catalytic polymerization of dicyclic dimethylsiloxanes

SOURCE: Vyssokomolekulyarnyye soyedineniya, v. 6, no. 9, 1964, 1662-1667

TOPIC TAGS: silicone, siloxane, dimethylsiloxane, polysiloxane, dicyclic polysiloxane

ABSTRACT: A study has been conducted of the synthesis of branched polyorganodimethylsiloxanes containing silsesquioxane groups at regular intervals in the backbone by catalytic polymerization of dicyclic dimethylsiloxane oligomers. Oligomers of the formula



Card 1/3

M 11161-65

ACCESSION NR: AP4045433

0

containing a large number (n) of dimethylsiloxane units between the rings (n = 13, 32, 66, 145, 170, 198, 224, or 270) were prepared by condensation of  $\alpha, \omega$ -dihydroxypolydimethylsiloxanes with heptamethylchlorocyclotetrasiloxane. Study of the polymerization of these oligomers revealed that in the presence of KOH they polymerize much more readily than octamethylcyclotetrasiloxane. A kinetic study of the polymerization at 70C in the presence of 0.5% KOH catalyst showed that with increasing n, the reaction rate and degree of cross linking decrease. All the polymers were transparent products which swelled readily in benzene and toluene. Polymers with n = 12 or 66 were brittle gels; those with n = 170 or over were very elastic materials. A thermomechanical study showed that the polymers differ considerably from linear polydimethylsiloxanes — their glass-transition temperature, is -90C, as compared to -58C for the polydimethylsiloxanes. Studies are being conducted to explain this sharp difference. Orig. art. has: 4 formulas and 5 figures.

Card 2/3

L 14461-65

ACCESSION NR: AP4045433

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii  
im. M. V. Lomonosova (Moscow Institute of Fine Chemical Technology)

SUBMITTED: 12Nov63

ENCL: 00

SUB CODE: OC, IC

NO REF SOV: 008

OTHER: 002

Card 3/3

VOLKOVA, Lora M.; ANDRIANOV, K.A.; OBUSHEVA, M.S.

Bicyclic dimethylsiloxane oligomers. Izv. AN SSSR. Ser. khim.  
no.11:1986-1989 N '63. (MIRA 17:1)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni  
M.V. Lomonosova.

VOLKOVA, E.M.; DEVIYATOV, A.M.

Determining the effective excitation cross sections of resonance lines of potassium atoms. Izv. AN SSSR. Ser. fiz. 27 no.8:1052-1055 Ag '63. (MIRA 16:10)

1. Kafedra elektroniki Fizicheskogo fakul'teta Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.

ANDRIANOV, K.A., akademik; BELAZALI, N.V.; VOINOVA, L.M.; GELMANOV, L.A.

Synthesis and spectra of trimethylsilyl-(phenyl, chloro-1-oxo-2,6,-disilacyclohexanes. Dokl. AN SSSR 166 no.6:1307-1311, 1965.  
(ChA 18:2)

1. Institut elementoorganicheskikh soyedineniy AN S.S.S.R.

L 18117-63

EPF(n)-2/EWP(q)/EWT(m)/BDS

AFMTC/ASD/SSD Pu-4 WW/JD/JG  
S/0048/63/027/008/1052/1055

ACCESSION NR: AP1004499

AUTHOR: Volkova, I. M.; Devyatov, A. M.

TITLE: Determination of the excitation cross sections for the resonance lines of atomic potassium. Report presented at the Second All-Union Conference on the Physics of Electronics and Atomic Collisions held in Uzhgorod 2-9 Oct 1962/

SOURCE: AN SSSR, Izvestiya, ser.fiz., v.27, no.8, 1963, 1052-1055

TOPIC TAGS: excitation cross section, electron impact excitation, spectrum line, K

ABSTRACT: To date there have been only two experimental studies (Loveridge quoted by R.B. Brode, Revs. Mod. Phys., 5, 257, and V.A. Fabrikant, Doklady AN SSSR, 25, 664, 1939) and one theoretical investigation (R. Damburg and V. Kravchenko, Izv. AN LatvSSR, No. 1, 73, 1960) devoted to evaluation of the excitation cross sections for the resonance lines of potassium. The experimental results disagree, possibly because Loveridge failed to take into account absorption. The authors used the photographic photometry technique to determine the electron-energy dependences and values of the excitation cross sections for the lines of the resonance doublet of K (7665 and 7698 Å lines). The measurements were performed in a special tube at a potassium vapor

Card 1/1

L 18147-63

ACCESSION NR: /P3004499

pressure of  $2 \times 10^{-6}$  mm Hg. The values arrived at for the excitation cross sections are  $q$  at 10 eV = 0.85 and  $q_{\max} = 0.90$  for the 7665 Å line ( $4^2S_{1/2} \rightarrow 4^2P_{3/2}$  transition), and  $q_{10 \text{ eV}} = 0.40$  and  $q_{\max} = 0.42$  for the 7698 Å line ( $4^2S_{1/2} \rightarrow 4^2P_{1/2}$  transition). The energy dependence of  $q$  is shown in Fig.1 of the enclosure. The relative error in the above values is estimated to be 35%. The sum of the cross sections agrees reasonably well with the results of Fabrikant and the theoretical calculations of Damburg and Kravchenko; it also agrees with the authors' calculations by means of a Born approximation formula adduced by L.A.Vaynshteyn (Optika i spektroskopiya, 11, 301, 1961). Orig.art.has: 7 formulas, 5 figures and 1 table.

ASSOCIATION: Kafedra elektroniki Fizicheskogo fakul'teta Moskovskogo gos.universiteta im.M.V.Lomonosova (Chair of Electronics, Dept. of Physics, Moscow State Univ.)

SUBMITTED: 00

DATE ACQ: 28Aug63

ENCL: 01

SUB CODE: PH

NO REF SOV: 004

OTHER: 002

Card 2/82

VOLKOVA, L. M.

Determination of the effective excitation cross sections of  
the arc lines of potassium. Opt. i spektr. 13 no.6:849-851  
D '62. (MIRA 16:1)

(Potassium—Spectra) (Quantum theory)

KLABUNOVSKIY, Ye.I.; AGRONOMOV, A.Ye.; VOLKOVA, L.M.; BALANDIN, A.A.

Adsorption of racemic and (+) -isomers of 2-butanol on  
stereospecific silica gels. Izv.AN SSSR.Otd.khim.nauk no.2:  
228-234 F '63. (MIRA 16:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR i  
Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.  
(Butanol) (Adsorption) (Silica)

ANDRIANOV, K.A.; VOLKOVA, L.M.; CHUMAYEVSKIY, N.A.

Vibrational spectra of organic compounds containing the elements of the IV<sup>a</sup> group (Si, Ge, Sn). Report No.7: Infrared absorption spectra of substituted aminomethylsiloxanes and the frequencies of C-H bond stretching vibrations. Izv.AN SSSR. Otd.khim.nauk (MIRA 15:12)  
No.11:1958-1964 N '62.

1. Institut elementoorganicheskikh soyedineniy AN SSSR.  
(Siloxanes—Spectra) (Hydrogen bonding)

S/062/63/000/002/013/020  
B144/B186

AUTHORS: Andrianov, K. A., Volkova, Lora M., and Tartakovskaya, L. M.

TITLE: Synthesis of dimethyl cyclosiloxanes containing functional groups in the ring

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 2, 1963, 294 - 298

TEXT: Dimethyl cyclosiloxanes with a functional group at the Si atom were synthesized by quantitative decomposition of dibasic sodium salts of  $\alpha,\alpha$ -dioxymethyl siloxanes with methyl trichlorosilane (I) or methylbutoxy-dichlorosilane (II). The dimethyl cyclosiloxanes obtained differed in the numbers of Si and O atoms in their rings and were separated by fractionation. Reacting 1,5-disodium-oxy-hexamethyl trisiloxane with I yielded heptamethyl chloro-cyclotetrasiloxane (b.p. 85.5 - 86.5°C, yield 15%), pentamethyl-chloro-cyclotrisiloxane (b.p. 47 - 50°C,  $d_4^{20}$  1.0265,  $n_D^{20}$  1.4050, yield 2.6%), and nonamethyl-chloro-cyclopentasiloxane (III) (b.p. 129 - 132°C,  $d_4^{20}$  1.0410,  $n_D^{20}$  1.4083, yield 7.8%). Reacting it with II yielded heptamethyl-butoxy-cyclotetrasiloxane (b.p. 94 - 96°C, yield 13.9%), Card 1/2

Synthesis of dimethyl...

S/C62/63/000/C02/013/020 .  
B144/B186

pentamethyl-butoxy-cyclotrisiloxane (b.p. 67 - 71°C,  $d_4^{20}$  0.9653,  $n_D^{20}$  1.4044, yield 2.1%), nonamethyl-butoxy-cyclopentasiloxane (b.p. 134 - 137°C,  $d_4^{20}$  0.9797,  $n_D^{20}$  1.4110, yield 4.8%), and undecamethyl-butoxy-cyclohexasiloxane (b.p. 200.5 - 203.5°C,  $d_4^{20}$  0.9857,  $n_D^{20}$  1.4135, yield 5.4%). All these compounds dissolved readily in benzene, toluene, acetone and ethyl ether. Their structure was derived from the IR spectra. Substituting  $NH_2$  for the Cl group in III gave nonamethyl-amino-cyclopentasiloxane (b.p. 134 - 137°C,  $d_4^{20}$  1.0160,  $n_D^{20}$  1.4115, yield 32.2%). There are 1 figure and 1 table.

ASSOCIATION: Institut tonkoy khimicheskoy tekhnologii im. M. V. Lomonosova  
(Institute of Fine Chemical Technology imeni M. V. Lomonosov)

SUBMITTED: May 21, 1962

Card 2/2

ANDRIANOV, K.A.; VOLKOVA, Lora M.; TARTAKOVSKAYA, L.M.

Synthesis of dimethylcyclsiloxanes containing functional  
groups in a cycle. Izv.AN SSSR.Otd.khim.nauk no.2:294-298  
F '63. (MIRA 16:4)

1. Institut tonkoy khimicheskoy tekhnologii im. M.V.Lomonosova.  
(Siloxanes)

S/051/62/013/006/011/027  
E032/E314

AUTHOR: Volkova, L.M.

TITLE: Determination of the effective excitation cross-sections for the arc lines of potassium

PERIODICAL: Optika i spektroskopiya, v. 15, no. 6, 1962, 849 - 850

TEXT: These cross-sections were determined by comparing the intensities of the lines with the continuous spectrum of a tungsten strip lamp (SI-8-200 (SI-8-200)). The experimental apparatus has been described in a previous paper (the author, Opt. i spektr., 6, 273, 1959). The cross-sections were calculated from the formula

$$q_{ik} = \frac{1}{4} \pi d^2 k_{\lambda} s D I_1 t_2, \text{ cm}^2 \quad (1)$$

$$= \frac{1}{4} \pi d^2 k_{\lambda} \frac{F_2}{F_1} \tau I_2 t_1$$

where  $d$  is the diameter of the beam of the excited gas in cm,  
 $k_{\lambda}$  - the spectral luminance of the tungsten lamp in erg/sec.sterad $\text{cm}^2$ ,  
Card 1/3

Determination of ....

S/051/62/013/006/011/027  
E032/E314

$s$  - spectrograph slit width in cm,  $D$  - the linear dispersion of the spectrograph in cm/cm,  $n$  - the concentration of potassium atoms in the ground state in  $\text{cm}^{-3}$ ,  $i$  - electron current at the receiver in A,  $e$  - electronic charge in coulombs,  $F_2$ ,  $F_1$  - focal lengths of the chamber and collimator lenses of the spectrograph in cm,  $I_1$ ,  $I_2$  are the intensities of the potassium and tungsten-lamp spectra and  $t_1$ ,  $t_2$  - the corresponding exposure times in sec.

The maximum possible error in the cross-sections is estimated as 35% and the numerical values for this quantity are tabulated for 19 potassium lines between 4863.66 and 5831.67 Å at an electron-excitation beam energy of 5 eV. The variation in the excitation cross-section with energy for the 6938.89 Å, 5801.86 Å and 5339.9 Å lines is shown in the figure (the ordinates of curve 1 should be multiplied by 6 to obtain the correct scale). There are 1 figure and 1 table.

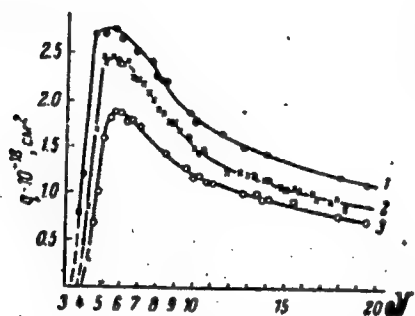
SUBMITTED: November 18, 1961

Card 2/3

Determination of ....

S/051/62/013/006/011/027  
EO32/E314

Figure



Card 3/3

S/062/62/000/011/004/021  
B101/B144

AUTHORS: Andrianov, K. A., Volkova, L. M., and Chumayevskiy, N. A.

TITLE: Vibration spectra of organic compounds containing elements of group IV (Si, Ge, Sn). Communication 7. Infrared absorption spectra of substituted amino-methyl siloxanes and stretching vibration frequencies of C-H bonds

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 11, 1962, 1958 - 1964

TEXT: The IR absorption spectra of the following compounds were studied:

$C_6H_5NHCH_2(CH_3)Si(OC_2H_5)_2$ , b.p. 130 - 132°C/5 mm Hg,  $n_D^{20}$  1.4975;

$C_6H_5NHCH_2(CH_3)_2SiOC_2H_5$ , b.p. 140 - 144°C/20 mm Hg,  $n_D^{20}$  1.5111;

$C_6H_5NHCH_2(CH_3)_2SiOSi(C_2H_5)_3$ , b.p. 109 - 109.5°C/0.5 mm Hg,  $d_4^{20}$  0.9402,

$n_D^{20}$  1.4927;  $(C_2H_5)_3SiOSi(CH_3)(CH_2NHC_6H_5)OSi(C_2H_5)_3$ , b.p. 159 - 161°C/1 mm Hg,

$d_4^{20}$  0.9514,  $n_D^{20}$  1.4819;  $(C_2H_5)_3SiOSi(CH_3)[CH_2N(C_2H_5)_2]OSi(C_2H_5)_3$ ,

Card 1/3

S/062/62/000/011/004/021  
B101/B144

Vibration spectra of organic...

b.p. 102 - 106°C/0.5 mm Hg,  $d_4^{20}$  0.8882,  $n_D^{20}$  1.4410;

$(C_2H_5)_3SiOSi(CH_3)(CH_2N \begin{smallmatrix} CH_2CH_2 \\ CH_2CH_2 \end{smallmatrix} O)OSi(C_2H_5)_3$ , b.p. 129 - 131°C/1 mm Hg,

$d_4^{20}$  0.9425,  $n_D^{20}$  1.4525;  $C_6H_5NHCH_2(CH_3)_2SiOSi(CH_3)_2C_6H_5$ , b.p. 123-128°C/1 mm

Hg,  $d_4^{20}$  1.0047,  $n_D^{20}$  1.5310;  $C_6H_5(CH_3)_2SiOSi(CH_3)(CH_2NHC_6H_5)OSi(CH_3)_2C_6H_5$ .

b.p. 187 - 196°C/1 mm Hg,  $d_4^{20}$  1.0534,  $n_D^{20}$  1.5381;

$C_6H_5NHCH_2(CH_3)_2SiOSi(C_2H_5)_2OSi(CH_3)_2CH_2NHC_6H_5$ , b.p. 173 - 175°C/0.5 mm Hg,

$d_4^{20}$  1.023,  $n_D^{20}$  1.5218;  $(C_2H_5)_3SiOSi(CH_3)(CH_2NHC_6H_4Cl)OSi(C_2H_5)_3$ , b.p.

153 - 157°C/0.5 mm Hg,  $d_4^{20}$  1.000,  $n_D^{20}$  1.4885, and

$(C_2H_5O)_2Si(CH_3)CH_2NH(CH_2)_6NH_2$ , b.p. 144 - 147°C/7 mm Hg,  $d_4^{20}$  0.9238,

$n_D^{20}$  1.4450. The results confirm the conclusions drawn by N. A. Chumayevskiy

(Optika i spektroskopiya, v. X, no. 1, 1961, p. 69) concerning the  
Card 2/3

Vibration spectra of organic...

S/062/62/000/011/004/021  
B101/B144

frequencies of Si-O-Si, Si-O-C, Si-CH<sub>3</sub>, Si-C<sub>2</sub>H<sub>5</sub>, and Si-C bonds. In the present paper the frequencies of the C-H bonds in the Si-CH<sub>3</sub> and Si-C<sub>2</sub>H<sub>5</sub> groups were identified, using data from the earlier paper. The following interpretation of frequencies is suggested:  $\nu_s(\text{CH}_2)$  2870 - 2880 cm<sup>-1</sup>;  $\nu_{as}(\text{CH}_2)$  2925 - 2940 cm<sup>-1</sup>;  $\nu_s(\text{CH}_3)$  2900 - 2910 cm<sup>-1</sup>, and  $\nu_{as}(\text{CH}_3)$  2956 - 2970 cm<sup>-1</sup>. There are 4 figures and 4 tables.

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR (Institute of Elemental Organic Compounds of the Academy of Sciences USSR)

SUBMITTED: March 23, 1962

Card 3/3

ANDRIANOV, K.A.; VOLKOVA, Lora, M.; SOKOLOVA, N.V.

Synthesis and polymerization of  $\alpha$ - and  $\beta$ -cyano derivatives  
of dimethylcyclsiloxanes. Vysokom.soad. 4 no.3:403-408  
Mr '62. (MIRA 15:3)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni  
Lomonosova.

(Siloxanes)

VOLKOVA, L.M.

Effective cross sections of excitations of certain spectral  
lines of sodium. Opt. i spektr. 11 no.6:775-777 D '61. (MIRA 14:11)  
(Sodium—Spectra)

ANDRIANOV, K.A.; VOLKOVA, L.M.

Reactions of amines with bis-(chloromethyl)-tetramethyldisiloxane  
and its derivatives. Izv. AN SSSR Otd.khim.nauk no.1:87-90 Ja  
'62. (MIRA 15:1)

1. Institut elementoorganicheskikh soyedineniy AN SSSR.  
(Amines) (Silicon organic compounds)

ANDRIANOV, K.A.; VOLKOVA, Lora M.

Synthesis and polymerization of heptamethylalkoxycyclotetra-  
siloxanes. Vysokom.soed. 3 no.10:1580-1583 0 '61. (MIRA 14:9)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni  
M.V. Lomonosova.

(Cyclotetrasiloxane)

TERENT'YEV, A.P.; GRACHEVA, R.A.; VOLKOVA, L.M.

Synthesis of substituted pyrrolidinecarboxylic acids via furan derivatives. Dokl. AN SSSR 140 no.3:610-613 S '61. (MIRA 14:9)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.
2. Chlen-korrespondent AN SSSR (for Terent'yev).  
(Pyrrolidinecarboxylic acid) (Furan)